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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/834,833	04/13/2001	Ramaprakash H. Sathyanarayan	M-9213 US	4294

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EXAMINER

WOO, ISAAC M

ART UNIT PAPER NUMBER

2162

DATE MAILED: 06/13/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/834,833	Applicant(s) SATHYANARAYAN, RAMAPRAKASH H.	
	Examiner Isaac M. Woo	Art Unit 2162	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 March 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,4-19,29-39,43 and 44 is/are pending in the application.
- 4a) Of the above claim(s) 5-10 and 12-18 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,4,11,19,29-39,43 and 44 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This action is in response to Applicant's Amendments, filed on March 09, 2005 have been fully considered but are deemed moot in view of new ground of rejections below.

2. Claims 1, 4, 19, 29-39 and 43-44 are pending (Claims 5-10 and 12-18 are withdrawn). Claims 1, 4, 11, 19, 29-39 and 43-44 are presented for examination for this office action.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1, 4, 19, 29-31, 33-39 and 43-44 are rejected under 35 U.S.C. 102(e) as being anticipated by Midgley et al (U.S. patent No. 6,778,003, hereinafter, "Midgley").

With respect to claim 1, Midgley discloses, if an item is a directory (94, 98, selecting 32 directories, fig. 4), spawning a new process (104, select another 32 directories, fig. 4, col. 24-67), and if the item is a file (source data files, 92, fig. 4, the source data files are to be synchronized for backup), copying the file (source data files are backup to the backup server, fig. 3, col. 12, lines 33-67 to col. 13, lines 1-41, fig. 4, col. 14, lines 24-30); wherein the new process if spawned executes simultaneously or contemporaneously with a current process that performs the spawning (col. 20, lines 12-49), and the new process performs the act of spawning (col. 13, lines 55-65, synchronization processes are running in parallel) or copying with another item in the directory, and wherein the current process repeats the act of spawning or copying with yet another item, see (104, fig. 4, col. 14, lines 24-67 to col. 15, lines 1-65, col. 20, lines 12-49, disclosed system of Midgley is a synchronization of files based on multiprocessing system).

With respect to claim 4, Midgley discloses, comparing a current number of processes started for copying, with a limit, and waiting if the current number is greater than or equal to the limit, see (col. 9, lines 18-35, storage space is decided before backup).

With respect to claim 19, Midgley discloses, spawning is performed only if the directory is not a current directory and not a parent directory, see (col. 20, lines 12-49).

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With respect to claim 29, Midgley discloses, spawning a process if an item to be copied is a directory (104, select another 32 directories, fig. 4, col. 24-67); and copying the item if the item is a file, see (source data files are backup to the backup server, fig. 3, col. 12, lines 33-67 to col. 13, lines 1-41, fig. 4, col. 14, lines 24-30).

With respect to claim 30, Midgley discloses, sending an email message if the means for copying encounters an error, see (fig. 1, col. 8, lines 30-65, e-mail service is provided).

With respect to claim 31, Midgley discloses, increasing a limit on a resource to maximum, see (col. 12, lines 33-67).

With respect to claim 33, Midgley discloses, checking if the item is a link to itself, see (col. 14, lines 24-67 to col. 15, lines 1-65, col. 20, lines 12-49).

With respect to claim 34, Midgley discloses, process is started with an instruction to perform the method for each item in the directory, see (col. 2, lines 1-9, col. 6, lines 42-49).

With respect to claim 35, Midgley discloses, process executes in parallel with any new process spawned by the repeating, see (104, fig. 4, col. 14, lines 24-67 to col. 15, lines 1-65, col. 20, lines 12-49).

With respect to claim 36, Midgley discloses, the number of processes created by spawning corresponds to the number of directories to be copied, see (104, fig. 4, col. 14, lines 24-67 to col. 15, lines 1-65, col. 20, lines 12-49).

With respect to claim 37, Midgley discloses, the item is from a list of items to be copied, and another item and the yet another item are also from the list, see (fig. 3, col. 12, lines 33-67).

With respect to claim 38, Midgley discloses, checking if the file is in a list of items to be excluded from copying, and performing the copying only if the file is not in the list, see (source data files are backup to the backup server directory, fig. 3, col. 12, lines 33-67 to col. 13, lines 1-41, fig. 4, col.14, lines 24-30).

With respect to claim 39, Midgley discloses, the file is copied to multiple destinations if specified by the user, see (source data files are backup to the backup server, fig. 3, col. 12, lines 33-67 to col. 13, lines 1-41, fig. 4, col.14, lines 24-30).

With respect to claim 43, Midgley discloses, spawning a new process, if the item is a directory, see (104, select another 32 directories, fig. 4, col. 24-67); and copying the item, if the item is a file, see (source data files are backup to the backup server, fig. 3, col. 12, lines 33-67 to col. 13, lines 1-41, fig. 4, col.14, lines 24-30); wherein the new

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process if spawned executes simultaneously or contemporaneously with a current process that performs the spawning, see (104, fig. 4, col. 14, lines 24-67 to col. 15, lines 1-65, col. 20, lines 12-49, disclosed system of Midgley is a synchronization of files based on multiprocessing system).

With respect to claim 44, Midgley discloses, creating a new process, if the item is a directory, see (104, select another 32 directories, fig. 4, col. 24-67); and copying the item, if the item is a file, see (source data files are backup to the backup server, fig. 3, col. 12, lines 33-67 to col. 13, lines 1-41, fig. 4, col.14, lines 24-30); wherein at least one of the creating and the copying is performed for each item, see (source data files are backup to the backup server, fig. 3, col. 12, lines 33-67 to col. 13, lines 1-41, fig. 4, col.14, lines 24-30); and wherein depending on a number of directories to be copied, a corresponding number of processes are created, see (total number of processes are according to the total number of directories in the source).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 11 and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Midgley et al (U.S. patent No. 6,778,003, hereinafter, "Midgley") in view of Crouse et al (U.S. Patent No. 5,764,972, hereinafter, "Crouse").

With respect claims 11 and 32, Midgley does not explicitly disclose, transferring data from the file into a temporary buffer; locking the temporary buffer; and invoking a direct memory access (DMA) process for making a copy from the temporary buffer. However, Crouse discloses, "cache blocks of data in a cache buffer and then access those blocks of data using a series of hash tables to search a link list of block entries stored in the cache buffer, the archiving the file system, system of the present invention modifies the extent array pointer used by the file system to reflect whether the block of data is presently stored in a cache buffer. If a block of data is presently stored in a cache buffer, then the archiving file system", see (col. 5, lines 44-64). This teaches that the cache buffer is used for temporary storage. Crouse discloses, "The first step is to lock the communication buffer which have been assigned to service the remote file request", see (col. 26, lines 23-35). And Crouse discloses, "Once the blocks 104 are all in the cache buffer, the cache buffer are marked as in cache (step 450) and the data is then transferred by DMA from the cache buffer defined the buffer memory 64 to the communication buffer (step 452). Finally, the communication buffers are unlocked (step 454) and the read command is completed (step 456)", see (col. 26, lines 23-56). This teaches that DMA process making a copy from the temporary buffer. Therefore, it would have been obvious to a person having ordinary skill in the art at the time of the invention

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was made to modify Midgley by incorporating transferring data from the file into a temporary buffer, locking the temporary buffer, and invoking a direct memory access (DMA) process for making a copy from the temporary buffer with the system of Crouse. Thus, one having ordinary skill in the art at the time the invention was made would have been motivated to use such a combination because that would provide Midgley's system the storing data in temporary buffer to provide efficient data transferring method in the data management system.

Conclusion

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Isaac M. Woo whose telephone number is (571) 272-4043. The examiner can normally be reached on 8:00-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John E. Breene can be reached on (571) 272-4107. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

IMW
June 6, 2005


JEAN M. CORRIELUS
PRIMARY EXAMINER